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NANBA MITSUO**(54) **CUTTER BLADE FOR CURVED TOOTH BEVEL
GEAR**

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(57) Abstract

PURPOSE: To cut the gear material of high hardness with an usual gear cutting machine for curved tooth bevel wheel by making the rake angle of blade in the axial direction of cutter proper a negative angle in a specific range in the circular cutter that has a multiplicity of cutter blades in its circumference.

CONSTITUTION: A multiplicity of cutter blades 1 is attached to the circumference of cutter proper 3 with bolts 2. The rake angle α of blade in the axial direction of cutter is made -5° to -30° , another one β in the direction perpendicular to the axis of cutter is made 0° . Here, the edge that cuts the tooth face of concave side of the bevel gear is shown by the number 5 in Figure, and the other 6 as for the convex side. By making the rake angle negative, the impact in starting the cutting can be made less and chips can smoothly be discharged since the cutting is initiated from the bottom of blade and is gradually shifted to the tip of edge.

